
Injection Device for Administering a Fluid Product

Claims

What is claimed is:

1. An injection device for administering a fluid product, comprising a casing, dispensing means for dispensing the fluid product from a product container, and operating means for operating said dispensing means, said operating means being provided laterally on a circumferential surface of said casing, wherein the operating means is pivotable in a radial direction relative to the casing about a fulcrum arranged laterally on the injection device and comprises a protrusion co-operable with the dispensing means via a surface oblique relative to a longitudinal axis of the casing, such that the dispensing means is moveable in an axial direction relative to the casing by pivoting the operating means.
2. The injection device as set forth in claim 1, wherein said fulcrum is provided on said circumferential surface in a generally central area of the injection device.
3. The injection device as set forth in claim 1, wherein said oblique surface is provided on one of said protrusion and said dispensing means.
4. The injection device as set forth in claim 1, wherein the protrusion is connected to the dispensing means by a T-connection such that they can slide relatively.

5. The injection device as set forth in claim 1, wherein the injection device comprises an indicator for indicating a product amount in the product container and the indicator is operated by pivoting the operating means.
6. An injection device for administering a fluid product, comprising a casing, dispensing means for dispensing said fluid product from a product container, operating means for operating said dispensing means, dosing means for releasing a predetermined size of a dosage, and an indicator for indicating a product amount, wherein said dosing means comprises a releasing element for releasing the dosage, said setting element projecting through an opening in the casing of the injection device, and wherein dimensioning said opening limits a movement of the setting element in accordance with said predetermined dosage amount.
7. The injection device as set forth in claim 6, wherein the predetermined dosage amount is released by moving the releasing element from a first stopper on the opening to a second stopper on the opening.
8. The injection device as set forth in claim 5, wherein said indicator comprises a scale up to the total number of dosage amounts contained in the product container and counts down by one unit on the scale when the dispensing means or the dosing means is operated.
9. The injection device as set forth in claim 5, wherein the indicator counts down by a dosage unit when the setting element is moved.
10. An injection device for administering a fluid product, comprising a casing, a holder for a product container of said fluid product, an injection needle, and a needle protector, wherein said needle protector comprises a sleeve arranged on one of said holder or said product container such that it can shift and generally surrounds said injection needle in an advanced position.
11. The injection device as set forth in claim 10, wherein a spring holds said sleeve in said advanced position.

12. The injection device as set forth in claim 9, wherein a guiding means is provided to guide when the injection needle is placed onto or removed from the product container.
13. The injection device as set forth in claim 10, wherein a guiding means is provided to guide when the injection needle is placed onto or removed from the product container.
14. An injection device comprising operating means pivotable in a radial direction relative to the device, wherein the operating means is co-operative with dispensing means via a surface oblique with respect to a longitudinal axis of the device and when the operating means is pivoted, the dispensing means moves in an axial direction relative to the device.
15. The injection device according to claim 14, wherein the operating means is pivotable about a fulcrum arranged laterally on the device.
16. The injection device according to claim 15, wherein the operating means comprises a protrusion co-operative with the dispensing means via the oblique surface.
17. An injection device comprising operating means pivotable in a radial direction relative to the device about a fulcrum arranged laterally on the device, wherein the operating means includes a protrusion co-operative with dispensing means via a surface oblique with respect to a longitudinal axis of the device, such that the dispensing means is moved in an axial direction relative to the device by pivoting the operating means.
18. The injection device according to claim 17, further comprising a moveable releasing element for releasing a dose, wherein the releasing element projects through an opening, the dimensions of the opening limiting movement of the setting element in accordance with a predetermined dose amount.
19. The injection device according to claim 17, further comprising a shiftable sleeve arranged such that, in one position, the sleeve surrounds an injection needle associated with the device.

20. The injection device according to claim 19, further comprising a moveable releasing element for releasing a dose, wherein the releasing element projects through an opening, the dimensions of the opening limiting movement of the releasing element in accordance with a predetermined dose amount.